

Confidence Intervals

How precise or accurate are particular rates?

Confidence interval data is provided to estimate how accurate the rates are for an individual hospital.

As noted elsewhere, all hospitals should strive to provide 100% of eligible patients with the current standard of care. Hospital rates should be reviewed with this in mind. (Look for large differences from that standard. Small differences usually don't mean a lot.) Currently we can estimate the confidence with which to hold the rates reported in the data displays based on theoretical distributions (see table below). Over time, additional quarters of data will be collected and one may be able to more accurately estimate the stability of these rates.

Estimating Confidence Intervals for the Quality Measures (except Antibiotic Timing at Arrival)

Sample Size	Observed Rate								
	10%	20%	30%	40%	50%	60%	70%	80%	90%
<25	--	--	24.9%	26.6%	27.2%	26.6%	24.9%	--	--
25-75	8.3%	11.1%	12.7%	13.6%	13.9%	13.6%	12.7%	11.1%	8.3%
76-125	5.9%	7.8%	9.0%	9.6%	9.8%	9.6%	9.0%	7.8%	5.9%
126-175	4.8%	6.4%	7.3%	7.8%	8.0%	7.8%	7.3%	6.4%	4.8%
226-275	3.7%	5.0%	5.7%	6.1%	6.2%	6.1%	5.7%	5.0%	3.7%
276+	2.9%	3.9%	4.5%	4.8%	4.9%	4.8%	4.5%	3.9%	2.9%

The values in the table are the approximate amount to add and subtract from the observed rate to estimate a 95 percent confidence interval for the given sample size (Interpolation between the values in the table is appropriate). Estimates of an interval in these cells exceed the natural limits for proportions.

Confidence Intervals for Antibiotic Timing at Arrival

(Additional information will be inserted here.)